

## Office Memorandum • UNITED STATES GOVERNMENT

TO : Chief, TSS/DDP

DATE: 5 December 1956

Attn : [REDACTED]

25X1

R&amp;D/APD

FROM : Chief, Administration and Training Staff/OS

SUBJECT: R&amp;D Technical Equipment, request for

25X1

1. For some time this office has had under consideration replacement of the BELL Tape Recorders currently used by [REDACTED] in operational support activities. Experience has shown a need for recorders embodying features peculiar and necessary to this type of activity which are lacking in the BELL.

25X1

2. Recent testing of an AMPEX recorder, modified by your office in accordance with certain recommendations of this office, have shown this unit to be well suited, as modified, for the usage intended. In addition to modifications in the recording unit proper, as indicated below, the unit was removed from the standard carrying case in which it comes from the manufacturer [REDACTED]

25X1

25X1

3. A prototype model has been turned over to [REDACTED] for study, necessary testing and evaluation.

25X1

4. On the basis of examination and testing of this recorder, by OS facilities, the following conclusions were reached and recommendations made for the modifications to be incorporated in AMPEX recorders proposed for issue to [REDACTED]

RECORDER:

25X1

- a. The AMPEX was selected for its high-quality construction, simplicity of operation, and ruggedness, as well as incorporation of basic features considered desirable for its contemplated use.
- b. The prototype recorder has been modified from variable to single speed operation (3 3/4"). Recorders issued should similarly be modified for single speed operation.
- c. It should be fused and the fuse should be readily accessible, mounted on the top control panel, if possible, where it can be replaced easily and quickly.

008632-

DOC	1	REV DATE	18 July 80	BY	057447
ORIG COMP	056	ORI	56	TYPE	02
ORIG CLASS	5	PAGES	9	REV CLASS	C
JUST	22	NEXT REV	2010	AUTH:	HR TS-2

SECRET

~~SECRET~~

CONFIDENTIAL

- d. Recording heads should be of the plug-in type, again for the purpose of ready replacement.
- e. The three-prong microphone receptacle should be removed, if feasible, and replaced with a conventional telephone jack receptacle.
- f. A separate motor switch should be incorporated in the recorder so that it can be used for monitoring with the reel motor off.
- g. A relay switch should be added so that the recorder motor can be turned on by remote control. A six-volt relay with a Jones #301 receptacle on the panel is suggested.
- h. The addition of a footage indicator is recommended.

CASE AND MOUNTING:

- i. The recorder should be mounted in a conventional man's suitcase. A suitcase of "Samsonite" or a similar sturdy material, in a conservative color, is suggested. The suitcase should have a removable cover and it should not be the type in which the cover and bottom meet on a bias.
- j. The suitcase should be somewhat larger than the one in which the prototype is mounted. The recorder should be centrally mounted so that the suitcase is well balanced for carrying, with its longitudinal axis at right angles to the longitudinal axis of the suitcase, permitting use of the free space at the ends of the suitcase for storage of spare reels, tools, cable, etc.
- k. The recorder should be firmly mounted in the suitcase. The metal container and the elaborate padding of the prototype are not necessary. Mounting by means of four bars, one at the top and bottom of each of the two sides of the recorder, rigidly fastened to the sides and bottom of the suitcase, with the recorder mechanism protected by some type of an expanded metal grill at the sides, is suggested.

~~SECRET~~

CONFIDENTIAL

~~SECRET~~

CONFIDENTIAL

5. In addition, the following items of accessory equipment were recommended for issue

25X1

ACCESSORY EQUIPMENT:

1. Two MINI-MIX units  These units, manufactured by SWITCHCRAFT, plug into the input receptacle of the recorder and permit use of two microphones, with individual volume controls for each microphone.
- m. A pencil-type soldering iron, such as the one manufactured by the Ungar Company, #776 handle and #1235 heating unit with spare pyramid tips.
- n. A volt-ohmmeter (20,000 ohms per volt-D.C. scale)
- o. A set of miniature Kraeuter pliers (diagonals, needle-nose, and long flat-nose pliers).

25X1

6. It is requested that your office take appropriate steps to obtain  with the incorporation of modifications recommended, if feasible. The method of effecting the modifications will be left to your discretion. It may be determined that your office could handle all or a major portion of the changes. In some instances, it may be found that the modifications may be made more economically and efficiently by the manufacturer.

25X1

25X1

AUTHORIZING OFFICER

I CERTIFY THAT FUNDS ARE AVAILABLE  
 OBLIGATION REFERENCE NO. \_\_\_\_\_  
 CHARGE TO ALLOTMENT NO. \_\_\_\_\_  
 OBJECT CLASS \_\_\_\_\_

I CERTIFY THAT FUNDS ARE AVAILABLE  
 OBLIGATION REFERENCE NO. 730  
 CHARGE TO ALLOTMENT NO. 1-7130-30  
 OBJECT CLASS \_\_\_\_\_

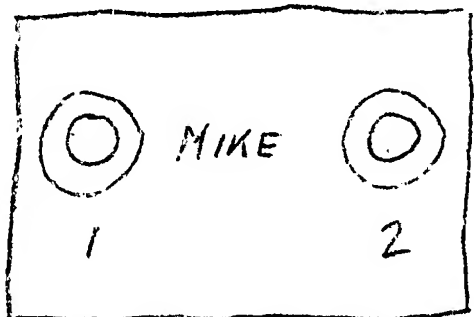
~~SECRET~~


25X1

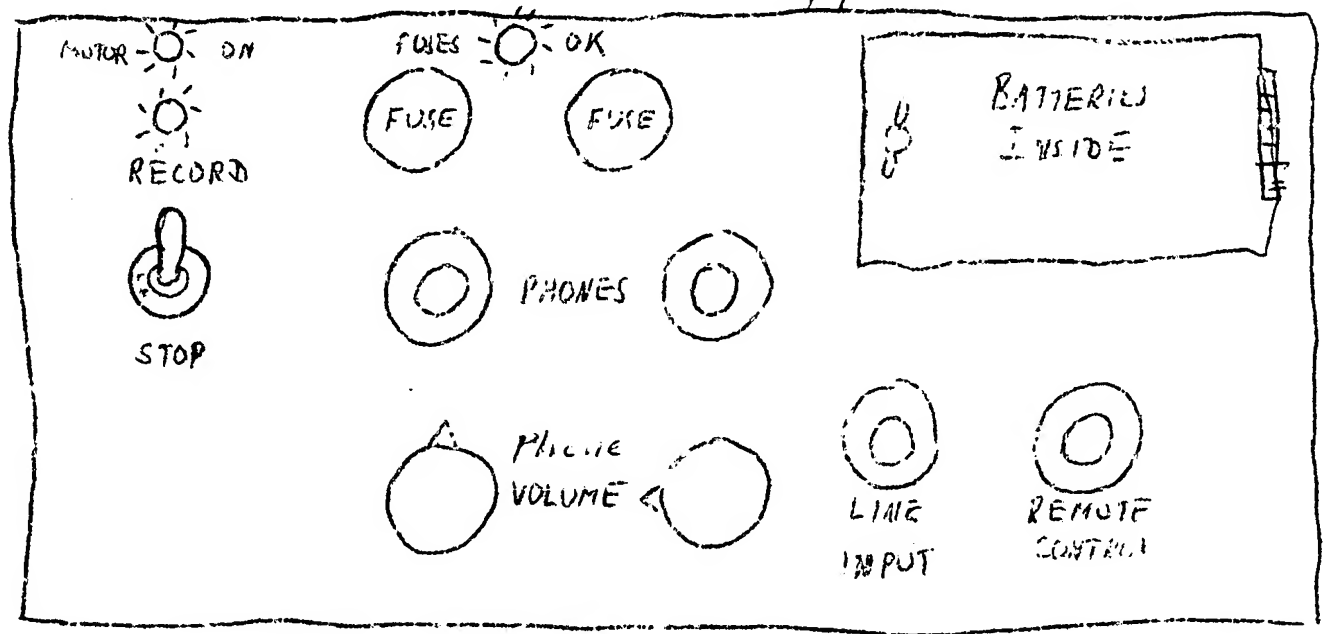
#15,200.

CONFIDENTIAL

BOOK NO. \_\_\_\_\_ PROJECT: IMPYEX 601 DATE 12/11/56 RESEARCH AND ENGINEERING NO. \_\_\_\_\_ PAGE 11



PANEL 1  
Parallels two mikes  
 AC



PANEL 2

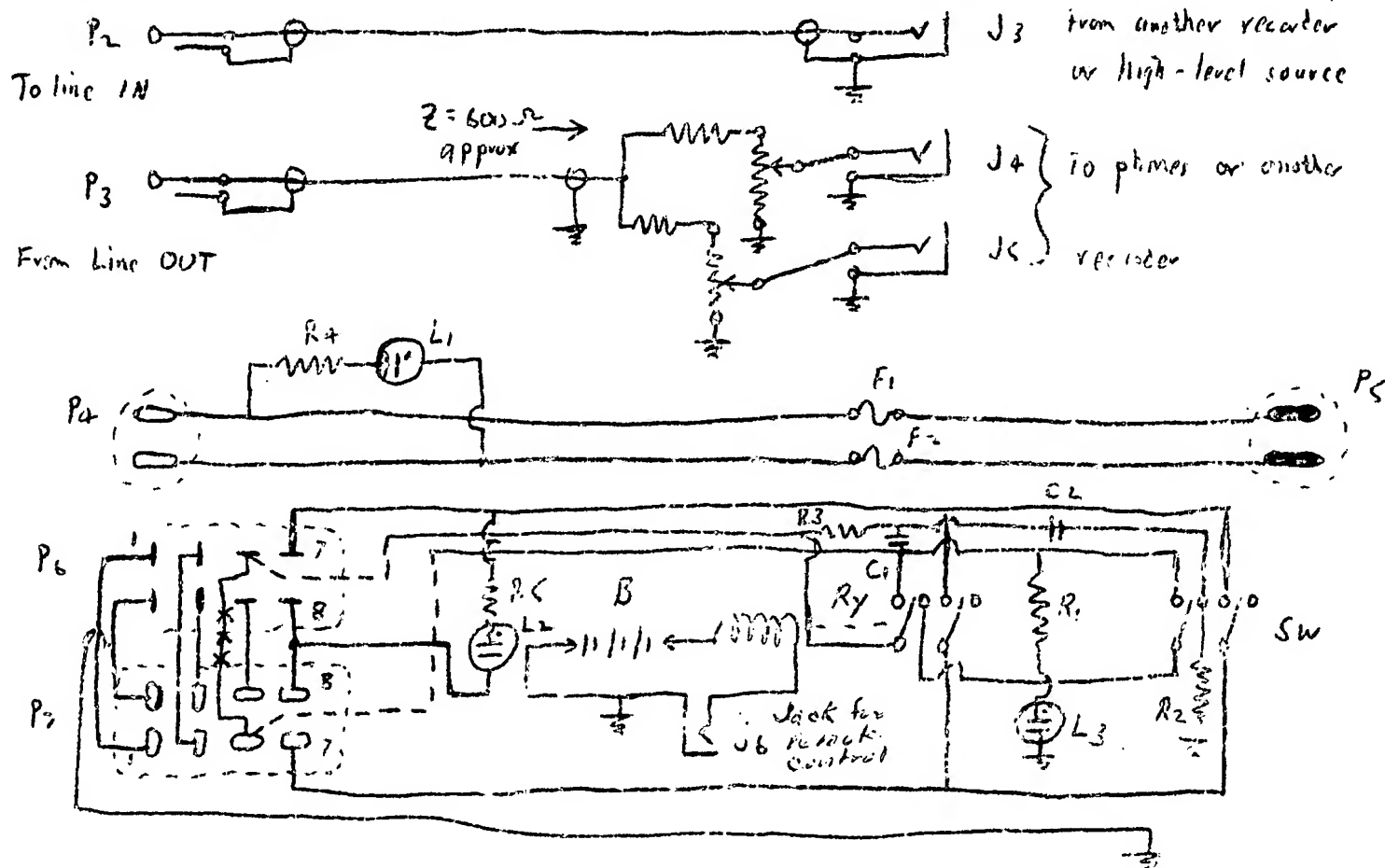
CONFIDENTIAL

WORK DONE: \_\_\_\_\_ DATE \_\_\_\_\_

PROJECT: APPENDIX 6.01

DATE \_\_\_\_\_

Aux PANEL #2. Cont'd.!



J3, J4, J5, J6 Single-circuit telephone jacks

P2 Miniature single-circuit telephone plug

P3 ~~Miniature~~ Single " " "

P4 Female AC plug

P5 Male " "

P6 Male 8-pin plug, Cinch-Jones P-308-FHT, -FHT-L, or -FHT-M

P7 Female " " " " " S-308-FHT, -FHT-M

Sw DPDT toggle

Ry DPDT battery operated

R3, R4, R1 470K

R2 20K 10W.

R3 100Ω

C1, C2 .01 μf 600V

F1, F2 1 Amp 3AG-5 fuse in panel holder

L1, L2, L3 Neon lamp

B Battery to run relay, with clips for connecting

WORK DONE: \_\_\_\_\_

DATE \_\_\_\_\_

PROJECT: AFAC 501

DATE \_\_\_\_\_

Accessories to be furnished, stowage, etc.

Stowage for jumper plug removed from Ampex

Spare fuses + stowage

Shielded patch cord, telephone plug each end, long enough to connect 2 receivers, + stowage.

Spare battery + stowage

Cord, 25' long, telephone plug one end, pendant switch other end, + stowage.

Stowage for spare rods

" " paper + pencils

" " several telephone plugs

" " wire

" " Ampex manual

" " microphone

Manual describing operation & circuit details of recorder portion, including details  
as to how to restore to original condition for continued maintenance.

Pictorial operating instructions in lid.

Switch templates

Tape lubricant + head cleaner

Spare tubes (5879 + 12AX7)

2 Phillips screwdrivers

Straight screwdriver

Wire cutters

Wire stripper

Knife

Spare tubes

25X1

Poly bags or what? for stowage

~~CONFIDENTIAL~~

WORK DONE: \_\_\_\_\_

DATE \_\_\_\_\_

PROJECT:

Amperex 101

DATE

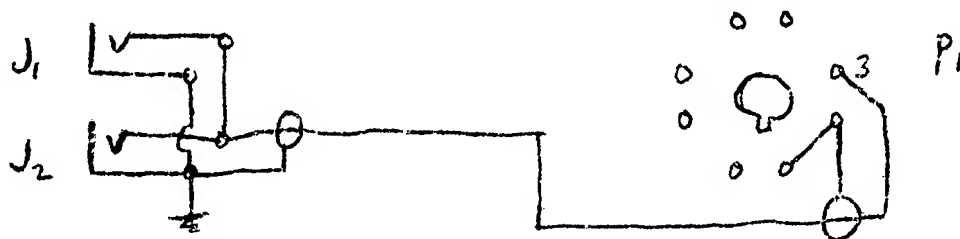
Modification to meet requirements of O.S. :

CONFIDENTIAL

Provide 2 auxiliary panels as follows :

AUX PANEL #1 :

Has 2 jacks in parallel connected to input grid via dummy plug socket



J1, J2 Single-circuit telephone jacks

P1 Amphenol 86-PM8 shielded male octal plug.

AUX PANEL #2 :

Has 1 line input jack

Has 2 line output jacks (for phono) with individual volume controls, and the whole to terminate Ampex output in 600  $\Omega$  approx.

Routes Ampex main 115 volt input, thru 2 fuses (1 amp)

Has 2 pendant Jones plugs mounted in Ampex main case, carrying line and load except motor, and possibly B+

Has 10 pole switch controlling motor } with spade suppression on contacts.  
Has relay controlling motor } might break read B+ also

Has battery terminals or compartment

Has jack or terminals for remote switch

CONFIDENTIAL

WORK DONE:

DATE

SENDER WILL CHECK CLASSIFICATION TOP AND BOTTOM

UNCLASSIFIED



CONFIDENTIAL

SECRET

CENTRAL INTELLIGENCE AGENCY  
OFFICIAL ROUTING SLIP

TO	NAME AND ADDRESS	INITIALS	DATE
1	<div style="border: 1px solid black; width: 150px; height: 100px; display: flex; align-items: center; justify-content: center; font-size: 2em; opacity: 0.5;">CONFIDENTIAL</div>		
2			
3			
4			
5			
6			

ACTION	DIRECT REPLY	PREPARE REPLY
APPROVAL	DISPATCH	RECOMMENDATION
COMMENT	FILE	RETURN
CONCURRENCE	INFORMATION	SIGNATURE

25X1

Remarks: The attached proposal re modification of Ampex 601 recorders was delivered by

25X1

The price includes the recorders proper. If desired  can submit a fixed-price proposal, or one wherein Phase I is cpff and Phase II is fixed price.

25X1

25X1

In my opinion the proposal is satisfactory and the price is reasonable.

I think we should delay this job no longer, and accept the  proposal if it is satisfactory to OS.

25X1

ILLEGIB

FOLD HERE TO RETURN TO SENDER

FROM: NAME, ADDRESS AND PHONE NO.

DATE

1/25/57

25X1

UNCLASSIFIED



CONFIDENTIAL

SECRET

SENDER WILL CHECK CLASSIFICATION TOP AND BOTTOM

UNCLASSIFIED

CONFIDENTIAL

X

SECRET

CENTRAL INTELLIGENCE AGENCY  
OFFICIAL ROUTING SLIP

TO	NAME AND ADDRESS	INITIALS	DATE
1			12/13
2			1/29
3	- Has not heard from		
4	as yet. If he does not call on 12/14		
5	I will call them Mon.		
6			ILLEGIB

ACTION	DIRECT REPLY	PREPARE REPLY
APPROVAL	DISPATCH	RECOMMENDATION
COMMENT	FILE	RETURN
CONCURRENCE	INFORMATION	SIGNATURE

## Remarks:

Attached concerns a modification of Ampex recorders desired by OS. A few days ago [redacted] and I met with the OS representative [redacted] 2512 I Bldg [redacted] and discussed this informally.

I suppose this should be exhibited to [redacted] or [redacted] and logged in.

[redacted] would like us to answer as soon as possible stating what portions of this are feasible, and whether the desired time schedule of 90 days can be met. He is also interested in knowing whether he must fund this, or as suggested by [redacted] whether it might be done under R&D.

A decision must be made on [redacted] vs a contractor.

FOLD HERE TO RETURN TO SENDER

FROM: NAME, ADDRESS AND PHONE NO.

DATE

12/6/56

UNCLASSIFIED

CONFIDENTIAL

SECRET